



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/743,387

12/23/2003

Masahiko Matsukawa

21581-00314-US

7938

30678

7590

01/16/2009

CONNOLLY BOVE LODGE & HUTZ LLP  
1875 EYE STREET, N.W.  
SUITE 1100  
WASHINGTON, DC 20006

EXAMINER

ZHENG, LOIS L

ART UNIT

PAPER NUMBER

1793

MAIL DATE

DELIVERY MODE

01/16/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/743,387	<b>Applicant(s)</b> MATSUKAWA ET AL.	
	<b>Examiner</b> LOIS ZHENG	<b>Art Unit</b> 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 29-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 29-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/18/08, 4/24/08, 5/12/08</u> .                              | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Status of Claims***

1. Claims 29 and 45-46 are amended in view of applicant's amendment filed 23 October 2008. Therefore, claims 29-48 are currently under examination.

### ***Status of Previous Rejections***

2. All previous rejections are withdrawn in view of applicant's claim amendment filed 23 October 2008.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 29-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 02-240295(JP'295) in view of Tada et al. US 6,514,357 B1(Tada).

JP'295 teaches a process for coating an automobile part by electrodeposition wherein the automobile part is pretreated in with a corrosion inhibiting coating, and without drying, directed treated with an electrodeposition coating(abstract). JP'295 further teaches that the automobile part is a steel sheet(page 2 left column 2nd paragraph).

However, JP'295 does not explicitly teach that corrosion inhibiting coating comprises the chemical conversion coating composition as claimed.

Art Unit: 1793

Tada teaches a conversion coating composition applied to metal surfaces to improve corrosion inhibition (abstract), wherein the conversion coating composition comprises metal ions such as Al, Mg, Ti, Zr, Cu (col. 3 lines 36-38 and 50-52, col. 7 lines 11-16), hydrofluoric acid (col. 6 lines 23-25), amino group-containing silane coupling agent (col. 6 line 61-col. 7 line 10). Tada further teaches that the metal surface can be any metal including steel sheets as seen in examples of Tada (col. 9 lines 21-23). In addition, phosphate ion is not an essential component in the Tada's conversion coating composition.

Regarding claims 29 and 47-48, it would have been obvious to one of ordinary skill in the art to have incorporated the conversion coating composition of Tada into the corrosion inhibiting coating treatment step of JP'295 in order to achieve superior corrosion resistance as taught by Tada.

In addition, even though JP'295 in view of Tada do not explicitly teach the claimed washing of the conversion coated metal base material with ion exchange water prior to electrodeposition, one of ordinary skill in the art would have found it obvious to have washed the conversion coated surface of JP'295 in view of Tada with water such as the claimed ion exchange water, in order to remove excess coating material without introducing impurities.

Furthermore, even though JP'295 in view of Tada do not explicitly teach that the electrodeposition is a cation electrodeposition as claimed, one of ordinary skill in the art would have found it obvious that the process of JP'295 in view of Tada can be applied to a cation electrodeposition process with expected success since cation

Art Unit: 1793

electrodeposition is a common electrodeposition method used in the automobile industry.

Regarding claim 30, Tada teaches adding organic acids such as citric acid and succinic acid to the conversion coating solution to further enhance the corrosion resistance(col. 7 lines 17-32). Tada further teaches that the acid content is not limited(col. 7 line 25). Therefore, one of ordinary skill in the art would have found it obvious to have varied the amount of organic acids such as citric and succinic acid in the conversion coating composition of JP'295 in view of Tada via routine optimization in order to achieve the desired level of corrosion resistance as taught by Tada

Regarding claims 31-34, Tada further teaches that the silane coupling agent is  $\gamma$ -aminopropyltrimethoxysilane (i.e. 3-aminopropyltrimethoxysilane), which reads on the claimed amino group-containing silane coupling agent(col. 6 line 63). Even though Tada only teaches a conventional amount of coupling agent is sufficient(col. 6 lines 57-60) and does not explicitly teach the claimed amount of coupling agent, one of ordinary skill in the art would have found it obvious to have varied the amounts of silane coupling agent in the conversion coating composition of JP'295 in view of Tada via routine optimization in order to improve the resistance against fingerprints and adhesiveness to the overcoat as taught by Tada(col. 6 lines 36-39).

Regarding claims 35-39, Tada further teaches that the metal ions such as Ti and Zr can be present in an amount of 0.1-2 wt%(col. 5 lines 36-48), which overlap the claimed Zr, Ti amount. Therefore, a prima facie case of obviousness exists. See MPEP 2144.05. The selection of claimed Zr, Ti concentration ranges from the disclosed

Art Unit: 1793

range of JP'295 in view of Tada would have been obvious to one skilled in the art since JP'295 in view of Tada teach the same utilities in their disclosed Zr, Ti concentration ranges.

Regarding claims 40-43, Tada further teaches that its conversion coating composition has a pH of 1.0-3.0(col. 6 lines 16-17), which overlaps the claimed pH range. Therefore, a prima facie case of obviousness exists. See MPEP 2144.05. The selection of claimed pH range from the disclosed range of JP'295 in view of Tada would have been obvious to one skilled in the art since JP'295 in view of Tada teach the same utilities in their disclosed pH range.

Regarding claims 44-46, Tada further teaches the claimed Mg, Al, Zn, Cu metal ions(col. 5 lines 17-20 and 36-40).

### ***Double Patenting***

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Art Unit: 1793

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 29, 32-43 and 47-48 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-8 of U.S. Patent No. 7,250,193 B2. Although the conflicting claims are not identical, they are not patentably distinct from each other because U.S. Patent No. 7,250,193 B2 teaches a metal surface treatment process that is significantly similar to the claimed cation electrodeposition process.

#### ***Response to Arguments***

7. Applicant's arguments filed 23 October 2008 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

JP59-064781 teaches a coating composition comprising silane coupling agent and fluoride compounds of Zr and Ti.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

Art Unit: 1793

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LOIS ZHENG whose telephone number is (571)272-1248. The examiner can normally be reached on 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roy King/

Application/Control Number: 10/743,387

Page 8

Art Unit: 1793

Supervisory Patent Examiner, Art  
Unit 1793

LLZ